

REMARKS

Claims 1-18 are pending in this application. By this Amendment, independent claims 1 and 11 are amended to even further distinguish over the applied references. The specification is amended to correct informalities. No new matter is added. Reconsideration of the objections and rejections is respectfully requested based on the above amendments and the following remarks.

I. Objection to the Specification

The Office Action objects to the specification because of typographical informalities. The specification is amended to correct the informalities, obviating the objection. Thus, it is respectfully requested that the objection be withdrawn.

II. Rejections of Claims 1-10

The Office Action rejects claims 1-3 under 35 U.S.C. §102(b) over Manabe et al. (Manabe), JP-A-2001-307758; rejects claims 4-9 and 14-18 under 35 U.S.C. §103(a) over Manabe; and rejects claim 10 under 35 U.S.C. §103(a) over Manabe in view of Scheffler et al. (Scheffler), U.S. Patent No. 6,393,354. The rejections are respectfully traversed.

Independent claim 1 is amended to clarify that the non-generation-time control portion is configured to stop a generation control performed by the generation control portion if the requested electric power is lower than or equal to a predetermined value, and is configured to operate at least one of the oxygen supplier portion and the hydrogen supplier portion based on a predetermined condition regardless of the requested electric power. Manabe fails to disclose or suggest these features.

Manabe discloses a fuel cell-equipped electric vehicle that uses a secondary battery 30 in addition to a fuel cell 20 (see Abstract). Both the fuel cell 20 and the secondary battery 30 are used to supply power to an electric motor 32 provided as a drive power source during a normal condition (see paragraphs [0005], [0006], [0012]-[0014] and [0017]-[0033]). Manabe

teaches that during an operating state where the power generation efficiency of the fuel cell 20 becomes low, power generation of the fuel cell 20 is stopped and the electric motor 32 is driven via only the secondary battery 30 (see, e.g., paragraphs [0005], [0006] and [0012]-[0014]). Nowhere does Manabe disclose or suggest a non-generation-time control portion configured to stop a generation control performed by the generation control portion if the requested electric power is lower than or equal to a predetermined value, and configured to operate at least one of the oxygen supplier portion and the hydrogen supplier portion based on a predetermined condition regardless of the requested electric power, as recited in independent claim 1.

Further, because the claimed non-generation-time control portion is configured to perform certain operations, the configuration further defines the structure of the claimed fuel cell system, and must be considered by the Examiner. Moreover, the Office Action's assertion that Manabe's fuel cell system "appears capable of provided [sic]" the claimed operations merely because Manabe's fuel cell system is "structurally similar" to the claimed system, is unsupported by Manabe, and is legally incorrect according to appellate case law and the MPEP, and is therefore erroneous. The system of Manabe is not programmed or otherwise structured to perform the claimed operations, and therefore does not anticipate claim 1. Thus, independent claim 1 is patentable over Manabe.

Because claims 2-10 and 14-18 incorporate the features of claim 1, and because Scheffler fails to overcome the deficiencies of Manabe, these claims also are patentable over the applied references. Thus, it is respectfully requested that the rejections be withdrawn.

III. Rejection of Claims 11 and 12

The Office Action rejects claims 11 and 12 under 35 U.S.C. §103(a) over Manabe in view of Scheffler. The rejection is respectfully traversed.

As discussed above, Manabe fails to disclose or suggest a non-generation-time control portion configured to stop a generation control performed by the generation control portion if the requested electric power is lower than or equal to a predetermined value, and configured to operate at least one of the oxygen supplier portion and the hydrogen supplier portion regardless of the requested electric power, as recited in independent claim 11. Scheffler merely discloses a predictive control arrangement for load-following applications (see Abstract and col. 2, lines 27-32). Thus, Scheffler fails to overcome the deficiencies of Manabe. Therefore, independent claim 11 is patentable over the combination of Manabe and Scheffler.

Because claim 12 incorporates the features of claim 11, and because Scheffler fails to overcome the deficiencies of Manabe, this claim also is patentable over the combination of Manabe and Scheffler. Thus, it is respectfully requested that the rejection be withdrawn.

IV. Rejection of Claim 13

The Office Action rejects claim 13 under 35 U.S.C. §103(a) over Manabe. The rejection is respectfully traversed.

Manabe fails to disclose or suggest operating at least one of the oxygen supplier portion and the hydrogen supplier portion based on a predetermined condition regardless of the requested electric power after the electric power generation is stopped, as recited in independent claim 13.

The Office Action acknowledges that Manabe fails to disclose these features, but asserts, without supplying any facts to support its assertion, that the features would have been obvious to one skilled in the art. Specifically, the Office Action asserts that it would have been obvious to one skilled in the art to have operated at least one of an oxygen supplier portion and a hydrogen supplier portion after electric power generation is stopped "in order to purge the fuel cell system of moisture . . . , to maintain the fuel cell system . . . at the required

temperature during an idle mode . . . , to bring the fuel cell system to the start up temperature, or . . . to shutdown [sic] the system." The Office Action provides no document to support its assertions, and thus provides no factual basis to support its conclusion of obviousness.

Moreover, performing these procedures with at least one of an oxygen supplier portion and a hydrogen supplier portion after electric power generation is stopped is contrary to the teachings of Manabe, and thus would not have been obvious to one skilled in the art in view of Manabe.

As discussed above, Manabe teaches that during an operating state where the power generation efficiency of the fuel cell 20 becomes low, power generation of the fuel cell 20 is stopped and the electric motor 32 of the car is driven via only the secondary battery 30 (see, e.g., Abstract and paragraphs [0005], [0006], [0012] and [0013]). That is, during this period, Manabe teaches that operation of fuel cell auxiliary machinery (which includes an oxygen supplier and a hydrogen supplier) is suspended to further save energy used to operate the fuel cell auxiliary machinery (see paragraph [0014]). Thus, it would not have been obvious to one skilled in the art to have operated at least one of an oxygen supplier portion and a hydrogen supplier portion after electric power generation is stopped, as recited in independent claim 13, based on the teachings of Manabe. Thus, independent claim 13 is patentable over Manabe. Therefore, it is respectfully requested that the rejection be withdrawn.

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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